# CS 255 Business Requirements Document Template

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CS 255: System Analysis and Design

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This template lays out all the different sections that you need to complete for Project One. Each section has guiding questions to prompt your thinking. These questions are meant to guide your initial responses to each area. You are encouraged to go beyond these questions using what you have learned in your readings. You will need to continually reference the interview transcript as you work to make sure that you are addressing your client’s needs. There is no required length for the final document. Instead, the goal is to complete each section based on your client’s needs.

**Tip:** You should respond in a bulleted list for each section. This will make your thoughts easier to reference when you move into the design phase for Project Two. One starter bullet has been provided for you in each section, but you will need to add more.

## System Components and Design

### Purpose

*What is the purpose of this project? Who is the client and what do they want their system to be able to do?*

The Purpose of this project is to create a system where DriverPass will be able to allow their customers to book appointments. DriverPass gives services to help the customer be able to pass their driving tests. DriverPass wants their packages information to be present and for security to be implemented into the program. This is all to accomplish the mission of DriverPass which is to provide a better driving training for people seeking to get their driver’s license.

### System Background

*What does DriverPass want the system to do? What is the problem they want to fix? What are the different components needed for this system?*

Driverpass wants their system to provide access to their data from anywhere online and offline. By offline they mean that they can download documents and pdfs and work on them in excel. The problem they are trying to have access 24/7 even if they are not in the office. Also, to accomplish the main mission of providing services for those trying to quire their driver’s license. The components needed for this system are security, tracking, and interface. It is vital for Liam to be the only one to have access to the whole system and then from their everyone else has their limited access points in the system. Tracking is very important to DriverPass because they want to see what their customers are up to as in cancelling or booking appointments. Lastly, interface is very important because it will help DriverPass’s system be informative on information and packages available to the customer.

### Objectives and Goals

*What should this system be able to do when it is completed? What measurable tasks need to be included in the system design to achieve this?*

Once everything is completed then the customer should be able to book appointments and select the package that the desire. The system should have an appealing interface that is smooth and operable for customers. The system needs to be able to have certain security blocks for different employees and full access to Liam because he is the “Big Boss”. The system should also be tracking data from what the customers are doing on the website whether they are canceling or making appointments. Lastly, the system should by update always with the latest DMV rules and laws. We do this by giving notifications in the system when the DMV updates any laws or regulations. The system should be run off the web and, in the cloud, so security and backup are accounted for. Running the system on the cloud also helps there be minimal technical issues that DriverPass does not want to have to deal with.

## Requirements

### Nonfunctional Requirements

*In this section, you will detail the different nonfunctional requirements for the DriverPass system. You will need to think about the different things that the system needs to function properly.*

#### Performance Requirements

*What environments (web-based, application, etc.) does this system need to run in? How fast should the system run? How often should the system be updated?*

* The system’s environment should be a web-based application so various users from different platforms will be able to access the content of the application. The system should be fast enough to be able to allow the users to access any content of the application without running into any complications. The system should be updated every time the DMV releases new laws or makes changes to any existing laws. The system should also update every time an “ADMIN” makes any changes to the application.

#### Platform Constraints

*What platforms (Windows, Unix, etc.) should the system run on? Does the back end require any tools, such as a database, to support this application?*

* Depending if the client wants to go the cheapest route, then the system should run on Linux because everything is practically free and if the system is incorporating the cloud, then the cloud will be able to manage all security. This will also account the databases required for back end. However, if driverpass is willing to pay a little more money than the platform should be windows for the system to run on. Since windows is very compatible and has built in security.

#### Accuracy and Precision

*How will you distinguish between different users?* *Is the input case-sensitive? When should the system inform the admin of a problem?*

* To distinguish between different user’s the system will have unique usernames and unique passwords for the customers and for Admin. Therefore, only the Admin will have access to make changes on the application. The input must be case-sensitive. A good way to add another layer of security is to add 2FA (two-factor authorization) this way the system will be more difficult to hack into. The team at driverpass made it clear that if something is ever wrong with the application then there should be a notification sent to the Admin so the fixes can be made immediately.

#### Adaptability

*Can you make changes to the user (add/remove/modify) without changing code? How will the system adapt to platform updates? What type of access does the IT admin need?*

* The system that is being put into place will allow the admin to make changes to different users without changing the code, this allows employees that no longer are a part of the driverpass team to be removed from accessing driverpass as an employee that can make changes. The system will be introduced to platform updates at a minimal rate, so the updates only occur when needed. However, if driverpass wants to add new features to the application then the platform updates will begin. The IT Admin will be one of the few that will have full access to the system. This is so the IT Admin will be able to make any changes or remove users at will without any constraint.

#### Security

*What is required for the user to log in? How can you secure the connection or the data exchange between the client and the server? What should happen to the account if there is a “brute force” hacking attempt? What happens if the user forgets their password?*

* For the user to be able to log in they will have to key in their unique username and password. Also they will have to verify themselves with 2FA with either their phone number or email address. To secure the connection or the data base exchange between the client and server we can use the cloud. If there is a “brute force” hacking attempt then after three incorrect login attempts the account should be locked and only be unlocked through the user’s email or phone number they signed up with. Once the original user gets a message someone was trying to log into their account then the administrator should be made known and make the necessary changes. If a user forgets their password there should be a link titled “forgot password?” that will then prompt the user to key in their cell phone or email that they used to sign up and a link will be set to reset their password.

### Functional Requirements

*Using the information from the scenario, think about the different functions the system needs to provide. Each of your bullets should start with “The system shall . . .” For example, one functional requirement might be, “The system shall validate user credentials when logging in.”*

* The system shall validate user credentials when logging in.
* The system shall offer three different diving packages.
* The system shall book a driving package.
* The system shall book reservations the user has selected.
* The system shall provide the tests and classes associated with the chosen package.
* The system shall show the instructor that the user is paired with.
* The system shall allow for different access to content based on the specific user.
* The system shall allow for data to be downloaded to work offline on Excel for example.
* The system shall run fast and efficiently.
* The system shall show previous package purchases.
* The system shall show progress such as previous tests and courses completed.
* The system shall update if DMV makes any changes or additions to driving laws.
* The system shall update if the Administrator makes any changes or updates.
* The system shall be web-based.
* The system shall be over the cloud.

### User Interface

*What are the needs of the interface? Who are the different users for this interface? What will each user need to be able to do through the interface? How will the user interact with the interface (mobile, browser, etc.)?*

* The systems interface based on the diagram provided by Liam will have the drivepass logo, online test progress, information (firt name, last name, address, city, state, zip, phone, email, etc.), special needs, driver photo, and student photo. The interface must provide the customer to make reservations for driving appointments, tests, courses, and packages. The different users for this interface are the customer, employees, and admin. Employees will have limited access compared to the IT Admin that has full access. The customer should be able to purchase a package and make reservations for courses or driving appointments. The employees will be able to go into the system and make minor changes and updates as needed. The IT Administrator will have full access to the system to add or remove employees access and make any update or necessary changes within the system. Since we have a web-based application that is running through the cloud, access is going to be given to any type of technology including mobile and browser.

### Assumptions

*What things were not specifically addressed in your design above? What assumptions are you making in your design about the users or the technology they have?*

* The assumptions made above that were not specifically addressed are if the project has a budget. This detail will play a big role in choosing the right platform for the system, currently fighting between Linux and Windows. Also, we are assuming that we are within budget with all the moves we are making to build the system. We are also assuming that our small consulting company has all this technology available to us. If we run strictly on IOS for example, then the operating platform of the system will more than likely be moves to IOS.

### Limitations

*Any system you build will naturally have limitations. What limitations do you see in your system design? What limitations do you have as far as resources, time, budget, or technology?*

* A limitation to the system that is being designed is the lack of information in key areas such as budget and the team that we have in place to attack this project with is unclear. We have five employees at our small consulting company consisting of Jennifer, ourselves, John, Toni, and Clark. We have roughly five months to complete this project and are going to need to spread the workload evenly throughout all the team members. An agile approach would greatly help with this because of daily scrum meetings that can be held to consistently be on schedule to delivery the system on May 8th.

### Gantt Chart

*Chart, waterfall chart

Description automatically generated*